

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended): A system for providing assistance in regenerating depollution means ~~(1)~~ associated with oxidation catalyst-forming means ~~(2)~~ integrated in an exhaust line ~~(3)~~ of a motor vehicle diesel engine ~~(4)~~, and in which the engine ~~(4)~~ is associated with common rail means ~~(7)~~ for feeding fuel to the cylinders of the engine and adapted, at constant torque, to implement a strategy of regeneration by injecting fuel into the cylinders in at least one post-injection, the system ~~being characterized in that it comprises~~ comprising:

- means ~~(8)~~ for detecting a request ~~(req.RG)~~ for regeneration, and thus for post-injection;

- means ~~(9, 10)~~ for detecting a state in which the vehicle accelerator pedal is being raised or a stage in which the vehicle engine is idling;

- acquisition means ~~(11)~~ for acquiring the temperature downstream from the catalyst-forming means ~~(2)~~;

- means ~~(8)~~ for responding to said temperature to determine a maximum quantity of fuel to be injected during post-injections during stages in which the engine is returning to idling as a result of the accelerator pedal being raised and stages during which the engine is idling; and

- means ~~(7, 8)~~ for immediately interrupting the or each post-injection if the quantity of fuel injected reaches the predetermined maximum quantity during a stage of returning to idling, and/or for progressively reducing the or each post-injection when the quantity of fuel injected reaches the predetermined maximum quantity during a stage of the engine idling.

2. (Currently amended): A system according to claim 1, ~~characterized in that~~ wherein the reduction means ~~(7, 8)~~ are adapted to reduce the or each post-injection in application of a calibratable slope ~~(20)~~.

3. (Currently amended): A system according to claim 1 ~~or claim 2, characterized in that~~, wherein the depollution means ~~(1)~~ comprise a particle filter.

4. (Currently amended): A system according to claim 1, ~~2, or 3, characterized in that~~ wherein the depollution means ~~(1)~~ comprise a NOx trap.

5. (Currently amended): A system according to ~~any preceding claim, characterized in that~~ 1, wherein the fuel includes an additive for being deposited together with the particles with which it is mixed on the depollution means ~~(1)~~ in order to facilitate regeneration thereof.

6. (Currently amended): A system according to ~~any one of claims~~ claim 1 to 4, characterized in that, wherein the fuel includes an additive that forms a NOx trap.

7. (Currently amended): A system according to ~~any preceding claim, characterized in that~~ 1, wherein the engine is associated with a turbocharger ~~(5, 6)~~.

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